(12) **UK Patent Application** (19) **GB** (11) **2 388 493** (13) **A**

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(54) Abstract Title: **Location based matchmaking using mobile access devices**

(57) A location-based computerised dating or
matchmaking service, based on location-specific
information from mobile access devices (such as
mobile phones and PDAs), which may be
cross-referenced against pre-registered subscriber
demographics and preferences stored in a central
repository, and implemented via messaging and
related services though the medium of mobile access
devices. This may include the use of GPS
location-specific information, but may also be
implemented though the use of location-specific
installed sensors utilising Bluetooth, Infrared or
similar short-range communications to identify
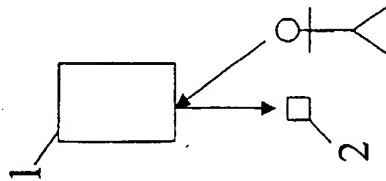potential partners within a specified arena.
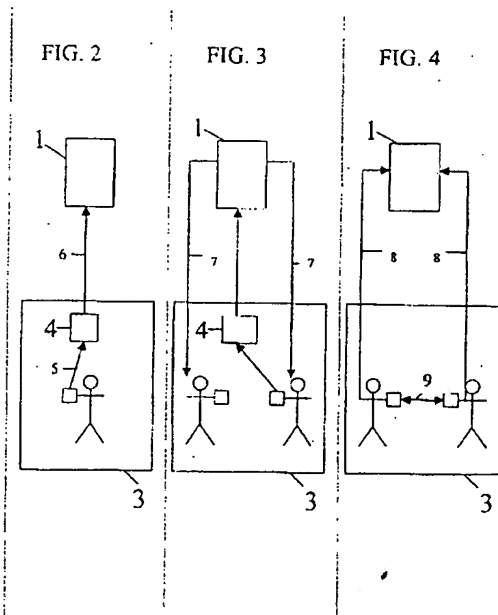
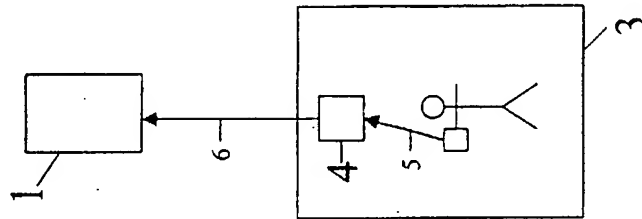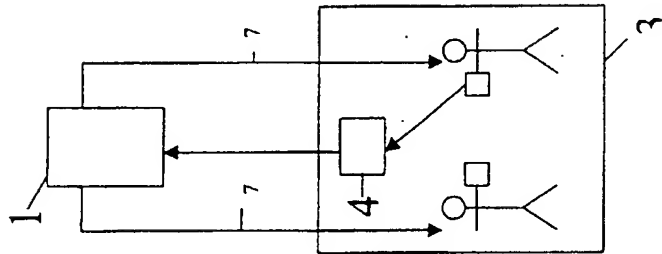FIG. 2   FIG. 3   FIG. 4
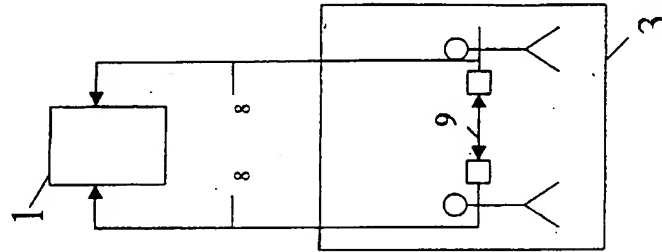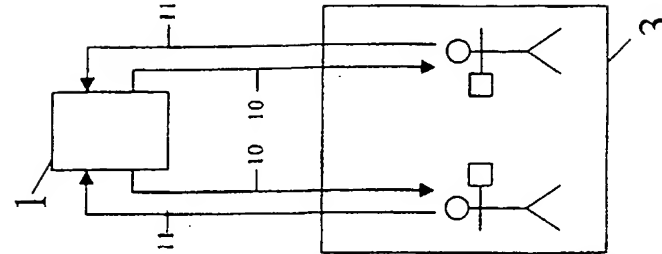
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FIG. 5

FIG. 4

FIG. 3

FIG. 2

FIG 1

LOCATION-BASED MATCHMAKING USING MOBILE ACCESS DEVICES

This invention relates to an integration of computerised dating services with mobile access devices and location-based services.

Computerised dating has the disadvantage that it is pre-organised, requires stressful preparation and pre-planning and loses the element of spontaneity important to successful relationship building.

The invention allows individuals to choose to participate in the traditional fashion, but to receive immediate, unplanned contacts in the same physical arena rapidly and securely, which can be tested immediately, and feedback on suitability given on-line.

This invention provides a location-driven computerised dating service based on an integration of wireless technologies, mobile access devices and back office matchmaking services. Users pre-register their demographics and personal partner preferences, then upon entry to pre-configured locations, identified either by location specific servers (when subscriber mobile phones are scanned on entry for identifiers) or using GPS or similar location based services, entrants are cross-referenced against a database of other present subscribers and preferences. Sets of possible contacts already physically present are identified, and are then downloaded to the customers' phones and presented to the subscribers for linkage, after which a mobile contact is then initiated. Once this mobile contact has been completed, and the partners have or have not physically met, subscribers are able to feed back their views on the potential partner's suitability through a scripted interaction.

FIGURES 1 to 5 shows a schematic diagram of the invention in five phases of interaction over time.

An example embodiment of this invention would be achieved using a combination of current technologies as follows:

1. A back office server and systems using SMS, vortal (voice recognition), WAP Phone, PDA on-line and/or WWW services to register customers and their relationship preferences (item 1 on figure 1). They would complete their self-described characteristics and the characteristics of those they were interested to meet (age, sex, ethnicity, height/weight, interests etc). If required, a program would be downloaded or minor changes made to their phone configuration (2) to permit interaction with the service in future.

2. On entry to a pre-configured location (Item 3 on Figure 2) such as a disco, nightclub or bar, data communications would be initiated from a static device at the entrance (4) using infrared, Bluetooth or a similar protocol, to read new arrivals' phone identification or use id at short range (5). Clubs, bars and similar locations with large numbers of single persons would register and purchase such an access point or 'location server'. These identity details are then sent (6) to the back office service (1).

3. When a new potential partner enters the arena and registers, the back office service (Item 1 in Figure 3) then identifies on-line matches of the new arrival with potential

partners already present in the physical arena (3). It matches the arrival with one or more potential partners, and transmits a potential partner 'token' to the mobile phones of one or more pairs of subscribers (7). This could be achieved using Short Messaging (SMS), WAP or multi-media Messaging (MMS). Information transferred includes first name, biographical information and optionally a passport-style digital photo or short video. This token expires after a period (such as 1 hour).

4. Both subscribers view the tags received, and at their leisure decide whether to accept the contact. If they both accept the token within a defined period, a message is sent back (item 8 on Figure 4) to the central database (1). This then initiates a mobile call or SMS interaction from one phone to another using their mobiles (9). They would take it from there.

5. After the pre-specified time, the potential partners are deemed to have interacted and views on initial suitability obtained. The back office system (Item 1 on Figure 5) then queries each subscriber (10) for their views on the suitability of the potential partner, and if either party is marked unsuitable, blocks that specific token-exchange in future. The subscribers are also presented with the opportunity to rate the other person for various criteria (11), to identify whether there were any obvious characteristics of the person that were unsuitable, in order to refine the central repository's searches further in future.

CLAIMS

1. A computerised singles matchmaking system with a central repository using mobile access devices for co-location identification and present partner matching, with initial contacts initiated and then managed and rated via mobile access devices.

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Application No: GB 0210467.7	**Examiner:**	Robert Shorthouse
Claims searched: 1	**Date of search:**	4 November 2002

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Search Report under Section 17

Databases searched:

UK Patent Office collections, including GB, EP, WO & US patent specifications, in:

UK Cl (Ed.T): H4L (LDPB, LDPPX)

Int Cl (Ed.7): H04Q 7/22

Other: Online: WPI, EPODOC, JAPIO

Documents considered to be relevant:

Category	Identity of document and relevant passage	Relevant to claims
X	WO 02/01405 A1 (HANCOCK) See abstract	1
X	WO 01/24551 A1 (SWISSCOM) See abstract, page 9 line 9 - page 10 line 18.	1
X	WO90/13828 A1 (WILVERLEY) See abstract	1
X	DE 10040948 A1 (AYRA) See English language abstract	1

X	Document indicating lack of novelty or inventive step	A	Document indicating technological background and/or state of the art.
Y	Document indicating lack of inventive step if combined with one or more other documents of same category.	P	Document published on or after the declared priority date but before the filing date of this invention.
&	Member of the same patent family	E	Patent document published on or after, but with priority date earlier than, the filing date of this application.

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